

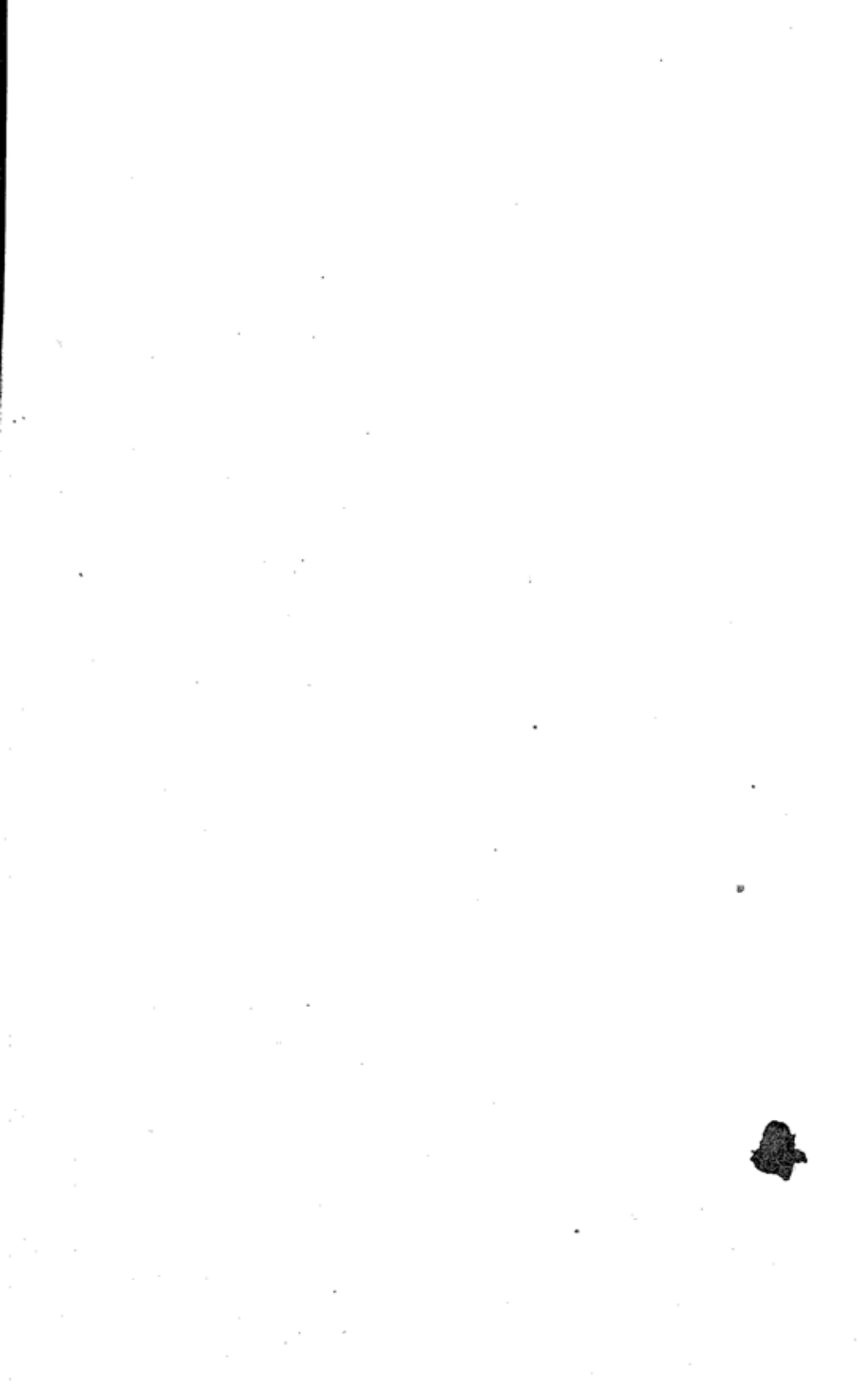
GOVERNMENT OF INDIA
ARCHÆOLOGICAL SURVEY OF INDIA
ARCHÆOLOGICAL
LIBRARY

ACCESSION NO. 22953

CALL No. R 722.4103/Coo

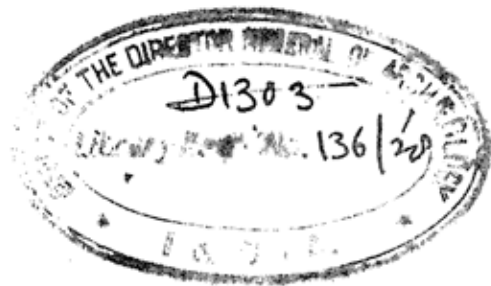
D.G.A. 79





Handwritten marks and scribbles at the top of the page.

D/303



INDIAN ARCHITECTURAL TERMS

ANANDA K. COOMARASWAMY

MUSEUM OF FINE ARTS, BOSTON

ACHARYA, P. K., *Indian Architecture According to the Mānasāra-silpaśāstra*, pp. iv, 268, index: *A Dictionary of Hindu Architecture*, pp. xx, 861, index. Both printed in Allahābād, published by the OXFORD UNIVERSITY PRESS, and without date (1927 or 1928).

These two volumes, the latter especially, are monumental works, and will be indispensable to every student of Indian architecture and *realia*. Only those who work along these lines will realise the great labour involved in the preparation of such books, especially when they are almost the first of their kind; the serious study of the Indian *śilpa-śāstras* has been too long delayed, and a warm welcome may be extended to the Professor's undertaking. The author, nevertheless, has neglected a good deal of work that has been done in this field; surprising omissions in the references, for example, are Rao, *Tālamāna*, Jouveau-Dubreuil, *Archéologie du Sud de l'Inde*, and texts such as the *Viṣṇudharmottara* and *Silparatna*. Moreover the author is too little, if at all, acquainted with the actual buildings; otherwise, indeed, he could not have remarked that the buildings and sculptures of the time when the text of the *Mānasāra* was composed "have all been destroyed," overlooking the fact that sculptures and buildings of this and earlier periods survive in thousands, and that a very great deal of exact information about the early architecture can be gathered from the Śuṅga, Kuṣāna, and Andhra reliefs. I have myself in preparation a work based on this early material, which can and necessarily will be very fully illustrated. Jouveau-Dubreuil had the immense advantage of a thorough knowledge of the actual architecture, and of personal contact with living *sthāpatīs* able to explain the meaning of technical terms; without these qualifications Professor Acharya has attempted an almost impossible task, for here book-learning, however profound, is insufficient.

The following notes, however, are meant to be a further contribution to the subject and an acknowledgment of the value of what the Professor has already accomplished, rather than further criticism.

R 722.4103
Coo

22953

As of most general interest I would call attention to the items *Ābhāsa*, *Candra-śālā*, *Hasti-nakha*, *Kuṭāgāra*, *Likh*, *Liṅga*, *Nārāca*, *Tulā*. I should also like to emphasize the fact that a study of the early use of the words which later appear as established technical terms in the *Śilpa-sāstras* is of great value for the study of architectural history. There is still very much to be accomplished in this direction.

Ābhāsa: together with *ardha-citra* and *citrābhāsa* are completely misunderstood. Neither of these is a material, but as explained by Śrīkumāra, *Śilparatna*, Ch. 64, vv. 2-6 (see my translation in the *Sir Ashutosh Mookerjee Memorial Volume*), and by Rao, *Elements of Hindu Iconography*, I, p. 52, citing the *Suprabhedāgama*, a method. Both the *Mānasāra* and *Suprabhedāgama* as cited by the Professor himself are perfectly clear on the point; as the matter is important, I quote the latter:

Sarvāvayava-sampūrṇaṁ dṛśyaṁ tac citram ucyate
Ardhāvayava-saṁdṛśyaṁ ardha-citraṁ caiva ca (sic).

Paṭe bhittau ca yo (al) likhyaṁ² citrābhāsam ihocyate (sic).

The mistake about *ābhāsa* has led to the extraordinary view (*Dict.* p. 65, l. 3) that *ālekhyā* is also a material. *Citra*, in fact is divided into *citra*, *ardha-citra*, and *citrābhāsa*, respectively sculpture in the round, reliefs, and painting. In *Indian Architecture*, p. 70, in the same connection *sarvāṅga-dṛśyamāna*, rendered "quite transparent," really means "in which all the parts of the body are visible." Of course, there are many cases where *citra* by itself is used to mean painting, but some of these need critical examination; for example *citrāṇi maṇḍalāni* of *Cullavagga*, V, 9, 2 does not mean "painted circular linings," as rendered in *S. B. E.*, XX, but simply "carved bowl-rests."

Ādhāra: add the meaning, "reservoir," *Arthaśāstra*, III. 8 (Meyer).

Adhiṣṭhāna, plinth: Mukherji, *Report on the Antiquities of the District of Lalitpur*, 1899, describes and illustrates the various parts and mouldings. A few diagrams of this kind would have greatly enhanced the value of the *Dictionary*.

Ājira: a courtyard, see Geiger, *Mahāvamsa*, Ch. XXXV, 3 and transl., p. 246.

Ālambana-bāha: the balustrade, *vedikā*, of a stairway, *sopānā*, *Cullavagga*, V, 11. Cf. *hasti-hasta*. *Ālambana*, per se, is the plinth of a railing or balustrade.

Ālekhyā: not in the *Dictionary*. See above under *ābhāsa*. The working drawing, on cloth, for the *Lohapāsāda* is thus designated in the *Mahāvamsa*, Ch. XXVII, 10. *Ālekhyā-sthāna* is a space left in a manuscript for the subsequent insertion of an illustration.

²yal lekhyam.

CENTRAL ARCHAEOLOGICAL
 LIBRARY, NEW DELHI.

Acc. No. 22953

Date... 16. 3. 56

Call No. R 722 4103/600

Ālinda: balcony, gallery. *Cullavagga*, VI, 3, 5, glossed *pamukha* = *pramukha*: *ib.* VI, 14, 1, described as *hatthi-nakkakam*, see *hastinakha*. In *Mahāvamsa*, XXV, 3, the rendering of *ālinda* as "terrace in front of a house door" (Geiger, *Mahāvamsa*, p. 246, note 2) seems very questionable.

Āmalaka: not in the *Dictionary*, though discussed in the other volume, p. 179, where *kalāṣa*, "vase" (finial) is misrendered "dome."

Not in the *Mānasāra*, and the suggested equivalent *mūrdhni-iṣṭaka* seems a little questionable. I doubt if an example as finial could be cited before the Gupta period, when it can be seen on the reduced edifices of the Sarnāth lintel (Sahni, *Catalogue*, pls. XV-XXVI); but these imply an already well-established tradition. The form is already employed architecturally in connection with pilasters represented at Amarāvati. In *Cullavagga*, VI, 2, 4 a kind of chair is termed *āmalaka-vanṭika-piṭṭham*, and this is glossed by Buddhaghosa as "having large *āmalaka*-formed feet attached to the back." The translation "many feet" of *S. B. E.* XX, 165, cited by Acharya without comment, can hardly be justified, though Buddhaghosa's *bahupāda* suggests it at first sight. Amongst the countless representations of chairs and couches in Indian art of all periods I cannot think of a single example with more than four legs.

Āngana: applied to the enclosure surrounding a stūpa, i. e. the circumambulation-platform between the stūpa and its railing, *Dhammapada Atthakathā*, 290 (Bk. 21, Story 1, Burlingame, H. O. S., vol. 30, p. 175).

Āpidvāra: *Arthaśāstra*, II, 3, and III, 8. Meyer renders "sidedoor," Shamasastri "front door." In III, 8, the latter meaning would seem to be indicated, as only one door is mentioned, and the window above it is referred to. In the early reliefs we see no side doors to ordinary houses, while there is generally a window above the single (front) door.

Āratni: add references to *Kauṭīliya Arthaśāstra*, II, 20, with a table of measurements practically identical with that of the *Mānasāra*. In *Arthaśāstra* II, 5, the rain gauge (s. v. *kuṇḍa* below) is to be an *aratni* in width, i. e. 2 spans (*vitasti*) or 24 *aṅgulas*.

Ārgala: Pali *aggala*, Sinhalese *agula*, a bolt. See under *dvāra*, below.

Ārghya: not in the *Dictionary*. In *Mahāvamsa*, XXX, 92, Geiger's rendering of *agghiya* as "arches" is impossible. *Agghiya-pantī* may be rows of garlands or swags, a common enough ornament, or more likely rows of vessels of some kind; *phalīkagghiya* must be a crystal dish or platter, as it has four corners in which are placed heaps (*rāsiyo*) of gold, gems, or pearls—but more likely we should understand *phalakagghiya* and translate as "wooden offering table" or "altar." In any case "four corners" has no meaning in connection with any sort of known *torāṇa*. *Agghika* of *Mhv.* XXXIV, 73 is more doubtful,

perhaps here equivalent to altars or reredos (Sinh. *wahai-kaḍ*). See also *agghiya*, *agghika* in P. T. S. Pali Dictionary.

Āryaka-stambha: not in the Dictionary: but see under *āveṣaṇin*, below, and Dictionary, p. 669.

Āsandi, a throne, seat: *Atharva Veda*, XV, 3 (see Whitney, in *H. O. S.*, Vol. VIII), where the various parts are named; the description suggests the types still seen at Amarāvati.

A detailed nomenclature of seats will be found in *Cullavagga*, VI, 2. Cf. *ib.*, VI, 14, also *Brahmajāla Sutta*, (*Dialogues*, I, p. 11, note 4).

Pace S. B. E. XVII, p. 27, it is by no means demonstrable from *Jātaka* I, 108, that *āsandi* means "cushion"; Cowell's "couch" is undoubtedly correct, and this is the sense everywhere else. To suppose a chair or couch placed in a cart presents no difficulty.

Aṭṭāla: watch-towers or gate-towers, *Milindapañha*, V, 4. *Gopuraṭṭhā*, *Mahāvamsa*, XXV, 30. *Gopuraṭṭāla*, *Uttarādhyaṇasūtram*, IX, 18, Charpentier, pp. 97, 314.

Āvasaraka: *osaraka* (Pāli) (? that which sheds water) overhanging eaves (of a building without verandahs, *andlinda*), *Cullavagga*, VI, 3, 5: glossed as *chadana-pamukhaṃ*, "projecting from the roof." *Osārake*, "under the eaves," i. e. outside the house, *Jātaka*, 111, 446. Cf. modern *chajja*.

Āveṣaṇin: not in the Dictionary; architect, foreman. Inscription on Sāñci south *torāṇa*, "Gift of Ananda, son of Vāsiṣṭhi, *āveṣaṇin* (rendered "foreman of the artisans") of Rāja Śrī Śātakarṇi" (Marshall, *Guide to Sanci*, p. 48). *Āyaka* (*āryaka*)-*stambhas* dedicated by Siddhārtha son of Nāgacanda, both *āveṣaṇins* (Burgess, *Notes on the Amaravati Stupa*, p. 56); *āveṣa* is stated to mean a workshop, atelier.

Āyas: not in the Dictionary. This word is always used for iron (see *loha*, below). *Mahāvamsa*, XXV, 28, *ayo-kammata-dvāra*, "iron studded gate" (of a city); *ib.*, 30, *ayo-gulaṃ*, "iron balls"; *ib.*, XXIX, 8, *ayo-jāla*, an iron trellis used in the foundations of a stūpa. Reference might have been made to the iron pillars at Delhi and Dhar, and the use of iron in building at Koṇārak.

Bodhi-ghara, *maṭṭabodhi-ghara*: temples of the Bodhi-tree, presumably like the many examples illustrated in the early reliefs. No doubt a pre-Buddhist form, preserved in connection with the cult of the Bodhi tree. See *Mahāvamsa*, XXXVI, 55, XXXVII, 31, etc.; in the former place provided with a sand court, *vālikātala*; *ib.*, XXXV, 89 *aṅgana*. Also called a *maṇḍapa*, *ib.*, XVIII, 63.

Bodhi-maṇḍa (*la*): is treated as synonymous with *vajrāsana*, but is really the special area within which the *vajrāsana* is established; see Hsüan Tsang as cited by Watters, II, 114, 115.

Candra (*-sālā*), etc.: some useful material is contributed towards a solution of the problem of the proper designation of the so-called "caitya-window" (dormer or attic window, gable, etc.), one of the

commonest and most distinctive motifs recognizable in Indian architecture from first to last. "Caitya-window" is unsatisfactory, as the form is by no means peculiar to, nor can it have been originally devised expressly for caitya-halls; the gable form is derived from that of an ordinary barrel-vaulted house end. *Toraṇa* is perhaps correct in so far as the window is actually an arch, *vātāyana* in so far as it is a window, but neither is sufficiently specific. The problem is a little complicated by the fact that we have to do both with arched windows actually admitting air to upper chambers, dormers, or attics, with real internal space, and also with similar forms used decoratively and placed in series on cornices or similarly used in friezes; but the various architectural forms, complete figures, or heads (see also *gandharva-mukha* and *grha*) which appear framed in the niche formed by the window-arch prove that the idea of an opening to internal space is always present. The best established word is Tamil *kāḍu* (Jouveau-Dubreuil, *passim*), but there seems to be no similar word in Sanskrit; *kāḍu* means nest, and it applies both to the window as an ornament, and to actual pavilions (*kaṇa-kāḍu*, Jouveau-Dubreuil, *Dravidian Architecture*, fig. 4). The proper term in Sanskrit seems to be *candra-sālā* (see s. v. in the *Dictionary*), meaning either a gabled chamber on or above the *kapota* (for which *candra* is given as a synonym), or the gable window itself. In the last case *candra-sālā* should really be an abbreviation of *candra-sālā-vātāyana*, and this seems to be the most explicit designation: "gable-window" is probably the best English phrase, German *dachfenster*.

A number of passages seem to show also that *gavākṣa* may be synonymous with *candra-sālā-vātāyana*. Thus in *Raghuvamśa*, VII, 11, the *gavākṣas* are crowded with the faces of beautiful young women looking out, and *ib.* XIX, 7, Agnivarman is visible to his subjects only to the extent of his feet hanging down from the *gavākṣa*. The modern vernacular equivalent is of course *jharokhā*.

The many-cusped arch, known to modern Musalman masons as *piyālidār mīhrāb*, and familiar in Rajput, Mughal, and modern Indian architecture, is a development of the "horse-shoe" arch (gable window) which has rightly been regarded as of Indian, pre-Muhammādan invention (Rivoira, *Moslem Architecture*, p. 110 f); every stage in the evolution can be followed. Cusped arches are found already in Java by the eighth century (Borobudur); there is an excellent example at the Gal Viḥārē, Poḷonnāruva, Ceylon. It would take too much space to treat this interesting subject at length here, but it is worth while to note that Mukherji, *Antiquities of the Lalitpur District*, I, p. 9, gives the Indian terminology; the "parts of the so-called Saracenic (five-foiled) arch, are all Hindu." These names are, for the spring of the arch, *nāga* (cf. *nāga-bandha* in the sense of chamfer-stop); for the foils or cups, *kaṭora*; and for the top, *cūkkā* (? = *cūlikā*, q. v. in *Dictionary*).

Caṅkrama: cloister, monk's walk, at first perhaps only paved, later roofed and railed (*Cullavagga*, V, 14, 2, 3). *Caṅkamana-sālā*, "hall in a cloister," *Cullavagga*, V, 14, 2 and *Mahāvagga*, III, 5.

Cetiya-ghara: in *Mahāvamsa*, XXXI, 29, and 60, 61, *cetiya-ghara* is a structure built over a stūpa, *thūpaṃ tassopari gharāṃ*. Some have seen evidence of such a structure in the still standing tall pillars surrounding the Thūpārāma Dāgaba at Anurādhapura, and this interpretation seems to be plausible, especially as the pillars are provided with tenons above. An actual example of a stūpa with a roof over it, supported by four pillars, can be seen at Gaḍalādeniya, near Kandy, Ceylon. The old cetiya-halls are also, of course, *cetiya-gharas*, and of these there existed also many structural examples.

"Thūpaghara . . . is simply a house over a tope" (Hocart, A. M., *Ceylon Journ. Science*, G., Vol. I, p. 145).

Channavāra: some description might have been given of this very common ornament, found from pre-Mauryan times to the present day. See Rao, *Elements of Hindu Iconography*, I, p. xxxi, and *M. F. A. Bulletin*, No. 152, p. 90. The *channavāra* passes over both shoulders and both hips, crossing and fastening in the middle of the breast and middle of the back; it is worn by deities and men, male and female, and occurs also in Java.

Citra: art, ornament, sculpture, painting, see above under *ābhāsa*. *Citra*, *citra-karma* do not always mean painting. Some places where the word occurs and has been so translated need re-examination; for example, *Cullavagga*, V, 9, 2, *citrāṇi maṇḍalāni* does not mean "painted circular linings," but rather "carved bowl-rests." Some references should be given to *citra-sabhā*, *citra-sāla* which are of very common occurrence in the sense "painted hall or chamber." The *citta-sabhā* of Jacobi, *Ausgewählte Erzählungen*, p. 39, has a high tower (*uttunga siharā*). Description of a *citta-sabhā* cited from the *Uttarādhyayana Sūtra*, Meyer, *Hindu Tales*, p. 174. *Cittā-gāra*, in *Sutta Viḍhaṅga*, II, 298.

Cūlikā: as something at the top must be connected with *cūḍā*. But in *Mānasāna*, L. 301, (*Dict.*, p. 197), *lambā-hāram api cūlikādibhiḥ*, *cūlikā* must be "bodice," and synonymous with *coḷaka*.

Darmanavami-śilā: not in the *Dictionary*. A square stone (or rarely bronze) slab or box divided into nine compartments in which are placed symbols connected with water, the whole being laid below the foundations of a temple or below an image (*A. S. I., A. R.*, 1903-04, p. 98, note). This object is known in Ceylon as a *yantra-gala*, where several examples have been found (Parker, *Ancient Ceylon*, pp. 298, 658; *Mem. Colombo Museum*, Series A, I, p. 25).

Deva-kula: in the *Avadāna-śataka* (Feer, p. 98), used of a temple of Nārāyaṇa. See also *A. S. I., A. R.*, 1911-12, p. 124. *Devakula* of

the Nāga Dadhikarṇa, Mathurā inscription, Lüders' List, No. 63. Inscription of Loṇāsobhikā on Mathurā āyāgapāṭa, see VI Int. Congr. Orientalists, III, p. 143.

Dhavalā, whitening: applied to a plastered or other surface, *Silparatna*, Ch. 64. *Dhavalā-hara*, a "White House," palace, Haribhadra, *Sanat-kumāracarita*, 548, 599, 608.

Drupada: a post, *Rg Veda*, 3, 32, 33. The whole passage is very doubtful, but apparently two horses are compared to carved figures of some kind (brackets?) upon a wooden post.

Dvāra: the parts of a door are listed in *Cullavagga*, V, 14, 3, also *ib.* VI, 2 (not quite correctly translated in *S. B. E.*, XX, p. 106), as follows: *kavāṭa*, the leaves; *piṭṭhasaṅghāṭa*² (= Sanskrit *prasthā-saṅghāṭikā*, "upstanding pair"), the door-posts; *uḍukhallika*, threshold; *uttarapāsaka*, lintel; *aggalavaṭṭi*, bolt-post; *kapi-sisaka*, bolt (-handle); *sūcika*, the pin or part of the *kapi-sisa* which fits into the socket in the bolt-post (cf. *sūci* = cross-bar of a *vedikā*); *ghaṭikā*, apparently the slot in the bolt-post just referred to; *tālaccchidda*, key-hole; *āviñchanacchidda*, string-hole; *āviñchana-rajju*, string for pulling the leaves to from outside preparatory to locking. Some of these terms occur elsewhere; with reference to a passage in the *Mahāparinibbāna Sutta* where Ananda leans against the *kapi-sisaka* Buddhaghosa is certainly right in glossing *kapi-sisaka* as *aggala*, for the Sinhalese *agula* is big enough to lean against (see my *Mediaeval Sinhalese Art*, figs. 80-82, for illustrations, *ib.* p. 133, for the Sinhalese terminology). As in so many other cases the terms are perfectly comprehensible when the objects have been seen as represented in relief, or in use, and when the modern technical terms are known.

As correctly observed in *S. B. E.*, XX, p. 160, *dvāra* is "doorway," "aperture," always with reference to outer doors or gates of any building, or of a city, while *kavāṭa* means the leaves of a door, the door itself.

See also under *gr̥ha*, and cf. Robert Knox's description of the palace of Rājā Sinha II, "stately Gates, two-leaved . . . with their posts, excellently carved."

Bahi-duāla-sālā = *bahir-dvāra-sālā*, "outer room," "gate chamber," *Mrochakaṭṭika*, III, 3.

From RV. I, 51, 14 we get *duryo yūpaḥ* for the door posts, from RV. I, 113, 14 *ātā* for the door leaves, and from RV. III. 61. 4 a thong (*syūman*) fastening.

Dvāra-bāhā: door posts, *Mahāvamsa*, XXV, 38: *ayo-dvāra*, *ayo-kammata-dvāra*, *ib.* XXV, 28, 29, 32.

Dvāra-koṭṭhaka, gate house: *oittakūṭa dvāra-koṭṭhaka*, etc., "a gate-house

² See *S. B. E.* XX, p. 105, note 2.

with a decorated peak, and surrounded by statues of Indra, as though guarded by tigers," *Jātaka*, VI, 125: cf. *Dhammapada Atthakathā*, Bk. 2, story 7.

For *koṭṭhaka* see also *Cullavagga*, V, 14, 4 and VI, 3, 10; *Jātaka*, I, 351 and II, 431; and Meyer, *Arthaśāstra*, p. 75, note 5 (in the sense of "shrine"). *Koṭṭhaka* is usually "gatehouse," but *piṭṭhi-koṭṭhaka* is "back-room" in *Dhammapada Atthakathā*, II, 19.

In *Jātaka* I, 227, *dvāra-koṭṭhaka* is, as usual, gate-house, not as interpreted in S. B. E. XVII, 219, 'mansion' (the 'mansion' is *ghara* and it has seven *dvāra-koṭṭhakas*).

Gārikā: red chalk. *Cullavagga*, V, 11, 6, *geruka*, red coloring for walls. Medium red color, *Silparatna*, Ch. 64, 117. Brown, *Indian painting under the Mughals*, p. 124 (used in preparing the *lekhanī* or pencil). Used as rouge, *Karpūramanjari*, III, 18, see H. O. S., Vol. 4, note on p. 268. As a pigment, *dhātu-rāga*, *Meghadūta*, 102. *Geruka*, *Cullavagga*, V, 11, 6, VI, 3, 1, and VI, 17, 1. *Mahāvagga*, VII, 11, 2.

Gaṇḍa-bheraṇḍa: insufficiently explained by the cross-reference to *stambha*. The two-headed eagle, a gigantic bird of prey, is first found in India on a Jaina stūpa base at Sirkap (Marshall, *Guide to Taxila*, p. 74). In mediaeval art two forms appear, analogous to those of *garuḍas*, one with a human body and two bird heads, the other entirely bird. Connected especially with the kings of Vijayanagar, and appearing on their coins, carrying elephants in its claws. Other examples at Śrīśailam (A. S. I., A. R., *Southern Circle*, 1917-18); remarkable panels at Koramaṅgala and Belūr, Cālukyan (*Mysore A. S. Rep.*, 1920, and Narasimachar, *Keśava temple at Belūr*, p. 8). A common motif in south Indian jewellery. In Ceylon, see my *Mediaeval Sinhalese art*, p. 85. Cf. also *hatthilinga-sakuṇa*, *Dhammapada Atthakathā*, I, 164. Further references will appear in the *Boston Catalogue of Mughal Paintings*.

Gandha-kuṭi: see s. v. *Kuṭi*.

Gandharva-mukha: designation of the busts or faces framed in the openings of *kāḍu*, *candra-sālā-vātāyana*, or *gavākṣa*, gable windows (Jouveau-Dubreuil, *Dravidian Architecture*, p. 12). Cf. *canda-muha*, s. v. *candra-sālā*.

Gavākṣa: see *Candra*, *Gandharva-mukha*, *Gṛha*, and *Harmya*.

Gṛha, *ghara*, *āgāra*, *geha*, etc.: there is an excellent description of Vasantasenā's house (*geha*, *bhavana*) in the *Mṛcchakaṭika*, IV, 30, seq. There are eight courts (*paṭṭhā* = *prakṣṭha*);³ above the outer door (*geha-dvāra*) is an ivory toraṇa, supported by *torāṇa-dharaṇa-thambha*, and stretching up its head (*śisa*) towards the sky; at each side are festival jars (*maṅgala-kalasa*)—"Yes, Vasantasenā's house is a beautiful thing." In the first court are *pāsāda-panti*, rows of pavilions, having stairways (*sobāṇa*), and crystal windows (*phaṭi-*

³ Pāli *pakuṭṭa*, *Cullavagga* VI, 3, 5 is rendered "inner verandahs" in S. B. E., XX, p. 175.

vāḍa = *sphaṭika-vātāyana*) with moon-faces (*muhe-cande*), or probably "faces on the candra," i. e. *gandharva-mukhas* framed in the *candra-śālā-vātāyanas* ornamenting the roll-cornice, for which the description "seeming to look down upon Ujjayinī" would be very appropriate. In the third court are courtezans carrying pictures painted in many colors, *vivīhavaṇṇi-āvalitta citraphala* = *vividhavarṇikāvalipta citraphalaka*. In the fourth court, where music and dancing take place, there are water-coolers (*salila-gagarī* = *salilagargarayaḥ*) hanging from the ox-eye windows (*gavekkha* = *gavākṣa*).

Tisalā's palace in the *Kalpa Sūtra*, 32, is a *vāsa-ghara*, dwelling place; it is *sacitta-kamme*, decorated with pictures, and *ulloya-cittiya*, has a canopy of painted cloth (cf. Pāli *ulloka*).

Milindapañha, II, 1, 13 has "As all the rafters of the roof of a house go up to the apex, slope towards it, are joined together at it."

The famous triumph song of the Buddha (*Nidānakathā*, *Jātaka*, 1, 76 = *Dhammapada*, 154) has "Broken are all thy beams (*phāsuka*), the housetop (*gaha-kūṭa*) shattered": the housebuilder is *gaha-kāraka*.

See also *Bodhighara*, *Cetiya-ghara*, *Cittāgāra*, *Dhavaḷa*, *Kūṭāgāra*, *Samudrāgāra*, *Santhāgāra*.

Harmya: *ramyaṁ harmyam*, a beautiful palace, *Vikrama Carita* (Edgerton, text and transl. in *H. O. S.* 26, p. 258, and 27, p. 239) has the following parts: *mūlapratīṣṭhāna*, basement; *bhitti-stambha-dvārataraṇa*, walls, pillars, doorways and arches; *śālabhañjikā*, statues; *prāṅgaṇa*, courts; *kapāṭa*, folding doors; *parigha*, door-bars; *valabhi*, roofs; *viṣaṅka*, cornices; *nāga-danta*, pegs; *mattavāraṇa*, turrets; *gavākṣa*, ox-eye windows; *sopāna*, stairs; *nandiyāvartādi-grha*, pavilions (?) (see *Dictionary*, s. v.). *Harmikā*, the little square structure on the top of a *stūpa* (*Divyāvadāna*). A cross reference to *rāja-harmya* should be given in the *Dictionary*.

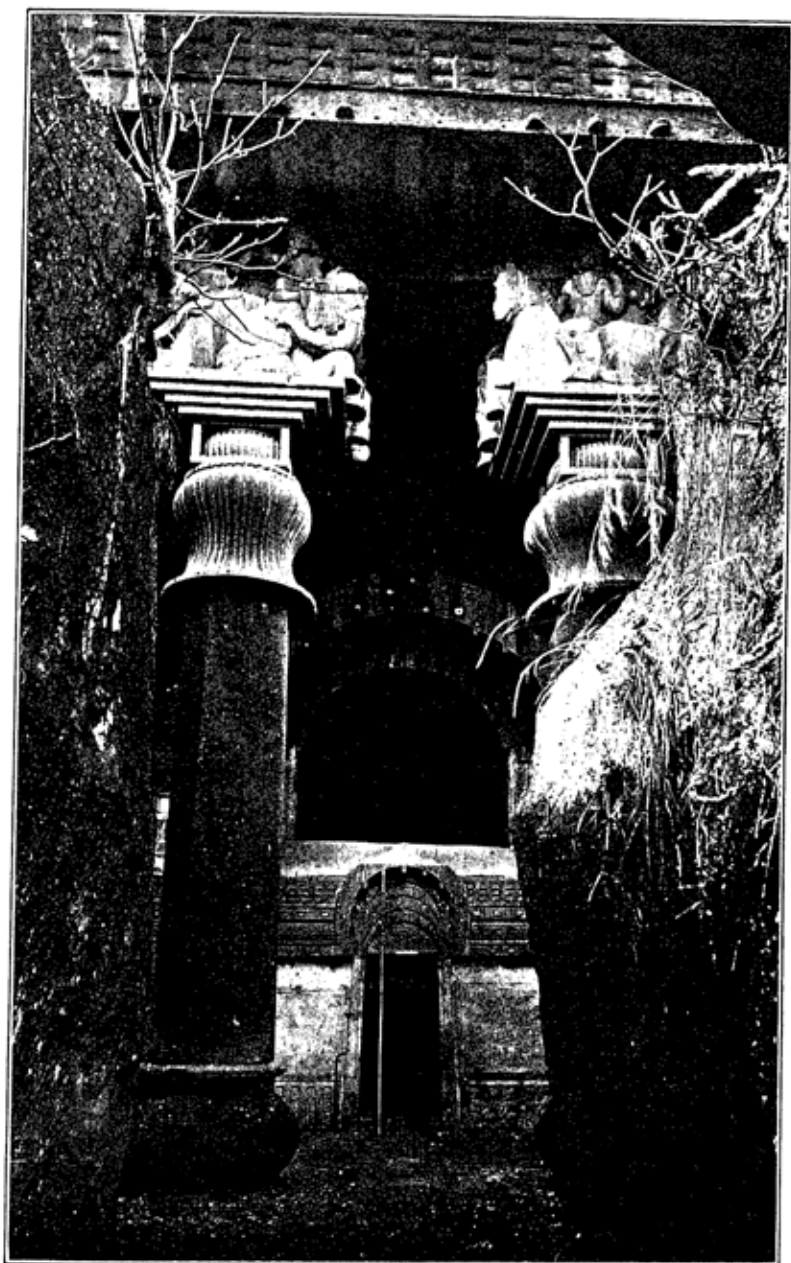
Harmya, dwelling, *Atharva Veda*, XVIII, 4, 55; RV. I, 121, 1, I, 166, 4, VII, 56, 16, etc.

Savitāna-harmya, *Raghuvamśa*, XIX, 39, "palace with an awning"; or perhaps *vitāna* = modern *chajja*.

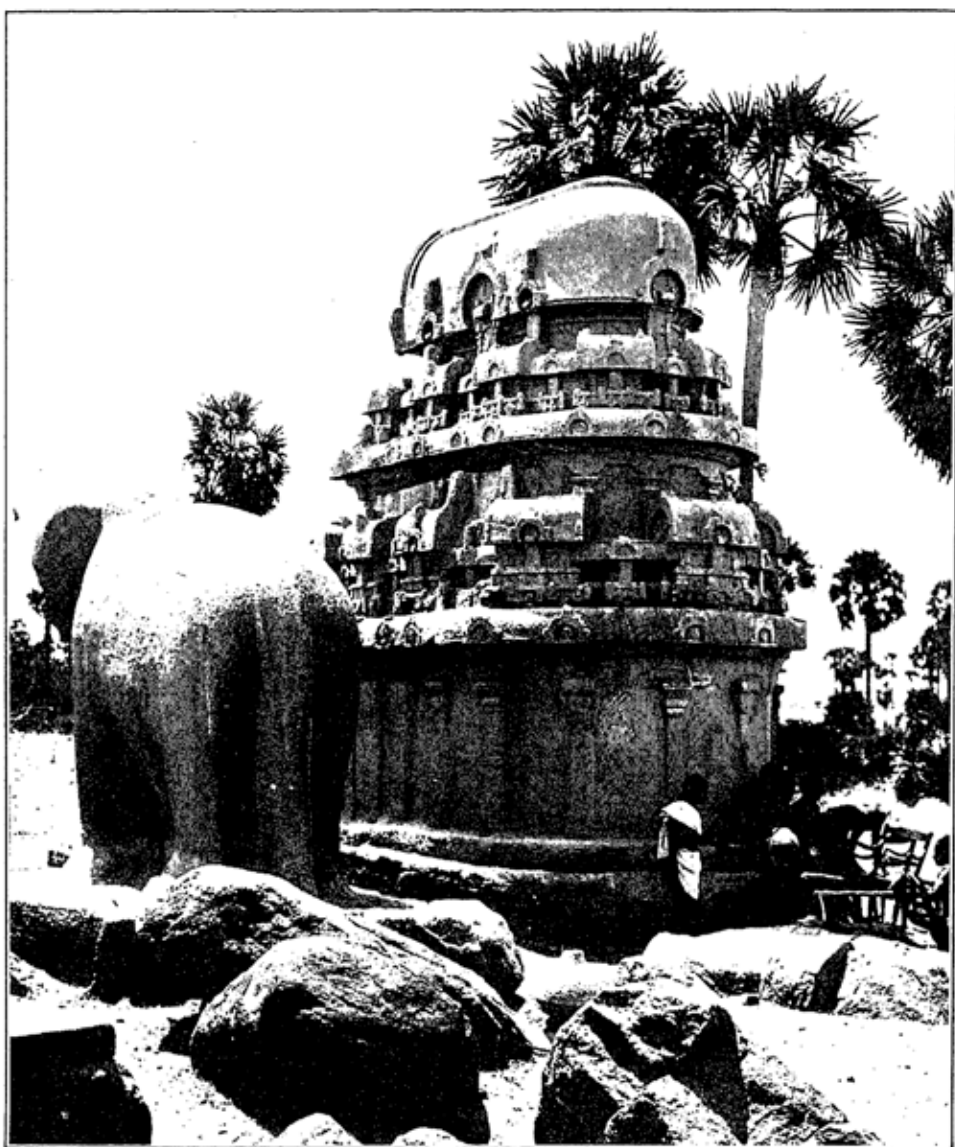
Hasti-hasta, *gaja-hasta*: amongst innumerable examples might be cited one at Nārāyaṇpur, Burgess, A. S. W. I., III, pl. XXXI, 3. Elephant-trunk balustrades in Ceylon are *et-hoṇḍa-vel*, with the same sense as *hasti-hasta*.

Hasti-nakha: literally "elephant's nail." In *Cullavagga*, VI, 14, 1 a *pāsāda* having an *ālinda* (balcony, gallery), qualified as *hatthi-nakhakam*, is a permitted monastic residence. According to Buddhaghosa's gloss this means *hatthi-kumbha patīṭṭhitam*, literally "supported on elephants' frontal globes," and so to be rendered "supported by pillars having elephant capitals"; and this is plausible enough,

* But see *Parikhā*, usually, and perhaps here also, a moat.



Entrance of *sela-cetiya-ghara* at Beḍṣā:
hasti-nakha column on left supporting *ālinda*.



RATHA OF NAKULA AND SAHADEVA, MĀMALLAPURAM.

Hasti-pyṣṭha construction (cf. back of elephant on left): shows also *pañjaras*,
and *kapotas* with *kāḍus*.

as pillars with elephant capitals, supporting galleries and upper storeys, are highly characteristic of early Indian architecture. It is true that one hesitates to accept *nakha* in any other sense than that of "nail" or "claw." But it is possible to retain the interpretation "elephant capital" without supposing that *nakha* = *kumbha*, for in fact the observer, standing at the foot of such columns, e.g. at Beḍṣā (see accompanying Plate), and looking upwards, sees nothing of the actual capital, except the under sides and nails of the fore feet of the elephants, which project beyond the edge of the abacus, and this may well have given rise to the term "elephant's nail" as applied to elephant capitals.

On the other hand, *hasti-nakha* occurring in the *Śiśupālavadhā*, III. 68, *Sanairaniyanta rayūpatanto rathāḥ kṣitīm hastinakḥāt . . . turāṅgaib*, "the swift chariots are slowly brought down from the *hastinakha* to earth by the horses," seems to refer to a place or structure on the rampart. Amara's gloss is *pūrdvāri mṛtkūṭaḥ* "a *kūṭa* made of earth at the city gate."

The word also occurs in *Kauṣīlyā Arthaśāstra*, p. 53 of Shamaśāstry, the Dictionary citing only Shamaśāstry's translation *s. v. gṛha-vinyāsa*. Here too, *hasti-nakhas* are connected with the gate and rampart of a fort. Meyer's version, p. 71, given here with slight modification, is much to be preferred: "For access, an 'Elephant's nail,' level with the opening of the gateway, and a drawbridge (*saṁhramaḥ saṁhārya*); or in case there is no water (for a moat), a causeway made of earth." The *hasti-nakha* is here then presumably a pillar with an elephant capital, standing in the moat, to receive the drawbridge when the latter is let down upon it, or pushed out onto it.⁵ It is not impossible that the term *hasti-nakha*, by an extension of the original and strict meaning, had come to be applied also to the drawbridge itself, and even to the causeway.

The *Śiśupālavadhā* passage would then imply simply the bringing of the chariots across the drawbridge, or, as understood by Amara, across the causeway of earth which takes its place when there is no water; and thence onto the solid ground.

Cf. *Keśanakha-stūpa*, *s. v. Stūpa*, not explained (Feer, *Avadāna Satakā*, p. 487), but possibly with some reference to a lion capital.

Hasti-prākāra, see *Prākāra*.

Hasti-prṣṭha, *gaja-prṣṭha*: this appropriate name is applied to the buildings with apsidal structures, common in Pallava, Coja, and later Dravidian work (see accompanying Plate). The reference on p. 159 to *Indian Antiquary* XII should be corrected to XL. On p. 398 *hasti-prṣṭha* single-storeyed buildings are said to have an "oval steeple"; read instead "apsidal roof." The Professor elsewhere often refers to oval buildings, perhaps meaning apsidal; an oval plan is unknown to Indian architecture.

⁵ Or, if we read *asamhārya*, then supporting a fixed bridge.

Jantāghara: hot bath room, *Mahāvamsa*, XV, 31, not in the *Dictionary*, though described without citation of the term, *Indian Architecture*, p. 14. *S. B. E.* XIII, p. 157, note 2. *Cullavagga*, V, 14, 3 and VIII, 8, 1; *Mahāvagga*, I, 25, 12-13.

Kaḍaṅkara, Pāli *kaḍṅgarā*: plank of a stairway, *sopāna*, *Cullavagga*, V, 21, 2.

Kalā: no reference to the *kalās*; see Venkatasubbiah, A., *The Kalās*, Madras, 1911, and *do*, with E. Müller, in *J. R. A. S.*, 1914. The lists include such items as *nagaramāṇam*, *vatthunivesam*, *dārukriyā*, etc.

Kalābhara: artist, expert. According to the *Gautama Dharma-sūtra*, VI, 16, the *kalābhara* who is five years older than oneself should be greeted with respect as *bhoḥ* or *bhavan*. Haradatta explains *kalābhara* as one who lives by the *kalās*, i. e. the knowledge of music, painting, leaf-cutting and the like.

Kaṇcuka: *kaṇcukaṁ* . . . *silāmayam* of *Mahāvamsa*, XXXIII, 25, is evidently rightly translated by Geiger as "a mantling made of stone" (for the *Khandhathūpa*). This must be the correct designation for the "casing" and "casing slabs" of archaeologists.

Kapota: should be translated "roll-cornice," "larmier." It is the main cornice of a building, derived from the edge of the thatch and the primitive drip-stone cut above cave dwellings to prevent the rain from running in. The synonyms of *kapota*, *candra*, *lupā*, *gopāna*, are significant; see *candra-sālā*. The rendering of *kapota* by "spout" should be avoided. As *pālikā* is abacus, *kapota-pālikā* should be a fillet above the *kapota*. Kern is undoubtedly right in rejecting the meaning "dove-cot," so also in the case of *viṭaṅka*. *Mṛcchakaṭika*, I, 51 has *kavālapa-viṭaṅka*, glossed *kapota-pālikā upariṅga* and translated in *H. O. S.* "dove-cot"; "dove-ridge" would be better. In reliefs, birds are commonly represented as perched on roofs and mouldings. Utpala's definition of *kapota-pālikā* quoted on p. 111 of the *Dictionary*, amounting to "corbel-ended timbers above the *kapota*" is quite intelligible, as these being seen end on, and coming between the top of the *kapota*, and the bottom of the next member above (as often represented in the early reliefs), are related to the *kapota* precisely as the abacus is related to the rest of the capital below it and the entablature above it.

Kappiya-bhūmi: not in the *Dictionary*. "Outhouse site," *Mahāvagga*, VI, 33, 2 = *S. B. E.*, XVII, p. 119.

Kammāra, Pāli *kammāra*, *Mahāvagga* I, 48 etc., Sinhalese *kammālar*: not in the *Dictionary*. Artisan, smith, etc. *Kammāra-bhaṇḍu*, workers in metals, *Mahāvagga*, I, 48, 1. Highly esteemed by king and people, *Jātaka*, III, 281. The viceroy of Kṛṣṇarāya of Vijayanagar exempted *kaṇmālars* from taxation (*A. S. I.*, *A. R.*, 1908-09, p. 184). Prakrit *kaṁmāra*, see Charpentier, *Uttarādhyayanāsūtram*, p. 351. See also my *Indian Craftsman*, and *Mediaeval Sinhalese Art. Kammāra-sālā*, smithy.

Karṇa-kīla, "the ear rod, fastened with iron (nails), along the sides of a house, and according to which the house is to be built," *Arthaśāstra*, III, 8. Probably the frame-work of four beams which rests on stone supports, cf. *Mediaeval Sinhalese Art*, Pl. VII, fig. 7, at the level of the man's waist.

Kaṭaka: add, a position of the fingers used in dancing, and seen in the hands of images holding flowers. See Rao, *Elements of Hindu Iconography*, I, p. 16; and *Mirror of Gesture*, p. 31. In this sense, synonymous with *siṃhakarṇa*.

Kaṭi-sūtra: in the sense of girdle, *Cullavagga* V, 2, 1. Technical terms for special forms, *ib.* V, 29, 2.

Keyūra: armlet, cf. *kāyura* in *Cullavagga*, IV, 2, 1, S. B. E. XX, p. 69.

Khaṇḍa, door (the actual leaf or leaves), *Arthaśāstra*, III, 8. Meyer makes it a single leaf. Shamasastri renders as equivalent to *kavāṭa*; the choice depends on the meaning assigned to *anidvāra* in the same passage. The door in any case would open inwards, hence Meyer's rendering with reference to the obstruction of space between two houses cannot be quite correct.

Kiñcikkha-pāsāṇa: *Mahāvamsa*, XXXIV, 69, stones apparently used as paving slabs round a stūpa, probably so called as being very smooth (cf. Skt. *kiñjalka*, filaments of a lotus). Childers gives the form *kiñjakkha-pāsāṇa*.

Kiṅkini-jālaya: network of bells adorning a *vedikā*, *Mahāvamsa*, XXVII, 16. Often seen on Bharhut and other early rail-copings.

Kirti-vaktra: add synonyms *kirti-mukha*, *makara(i)-vaktra*, *makara-patra*, *siṃha-mukha*; and Sinhalese *kibihi*, and *kāla-makara* of Dutch archaeologists. The inclusion of the term in the *Mānasāra* shows that the text cannot antedate the Gupta period, for the *makara* face as the crowning element of a *torāṇa* is not developed before that time at the earliest, the crowning element in earlier types being plain or having the form of a *triśūla* or *śrīvatsa*.

Kośa-grha, store room, treasury: has triple underground cellar with many chambers, amongst which is a *devatā-vidhāna*, or chapel, with images of the *Vastu-devatā*, *Kubera*, etc., *Arthaśāstra*, II, 5.

Koṣṭhagāra: a pair of storehouses are referred to by this name in the Sohgaura plaque inscription, and illustrated on the same plaque (Fleet, in *JRAS*, 1907). They are described as *trigarbha*, having three rooms; Fleet discusses this at length, but it is evident from the illustrations that these rooms are on three storeys, for the storehouses are represented as small three-storeyed pavilions; it is true that the roof of the top storey is "out of the picture," but its supporting pillars can be clearly seen. For another use of *garbha* as designating chambers of a many-storeyed building see under *Prāsāda*, the *Lohapāsāda*. See also *prakoṣṭha*, s. v. *grha*, *dvāra-koṣṭhaka*, and *kuṇḍa*.

Kūdu, see *s. v. candra-sālā*.

Kumbha (and *kalāṣa*): I cannot see any evidence in the texts cited to justify the translation "cupola." The jar in question has actually always the form of a jar, and is placed *above* the dome, cupola, spire, *amalaka*, roof-ridge, or whatever otherwise forms the top of a building. *Kumbha* also = temples of an elephant, see *s. v. hasti-nakha*.

Kuṇḍa: a bowl used as a rain-gauge (*varṣamāna*) and placed in front of a granary (*koṣṭhagāra*) (*Kauṭilya, Arthaśāstra*, II, 5).

Kuṇḍikā: should be equated with *kamaṇḍalu* (not in the *Dictionary*) and explained as the water-pot carried by Brahmanical hermits and Buddhist monks, and provided with two openings, one a funnel at the side for filling, the other at the top of the neck, which is also the handle. Many examples have been found on Indian Buddhist monastic sites. The *kuṇḍikā* is carried only by deities of ascetic type especially *Brahmā* and *Śiva*, and by *ṛṣis*, and should not be confused with the *amṛta-kalāṣa*, which has only one opening, and is carried by other deities, especially *Indra* and *Maitreya*. A full discussion of the Indian and Chinese forms by the present writer and F. S. Kershaw will appear in *Artibus Asiae*.

Kūṭāgāra: regarding the *kūṭāgāra-sālā* in the *Mahāli Sutta* of the *Dīgha Nikāya*, Buddhaghosa, *Sumaṅgala-Vilāsinī*, p. 309, has the following, which I quote here from a letter received from Mrs. Rhys Davids: "In that wood they established a Saṃgha-park. There, having joined the *kaṇṇikā* (ear-thing, corner of the upper storey) of the pillars (*thambha*, lit. supports) above by the *samkhēpa* (holding together, fastening together) of the *kūṭāgāra-sālā*, they made the *pāsāda* (terraced or balconied mansion) like to a mansion of devas. With reference to this the Saṃgha-park was known as the *Kūṭāgāra-sālā*." Here, cf. *samkhēpa* with *kṣepaṇa* in the sense of cornice; but I suspect a reference to brackets connecting pillars and *kaṇṇikā* (the *Dictionary* has *karṇikā* = upper part of the entablature); such brackets are very frequently represented in the early reliefs (*Bharhut* and *Sāñci*). Acharya's Index has no entry under "bracket," but there must have been a word or words in use for so common a structural feature.

Geiger's "balconied windows" for *kūṭāgāra* in *Mahāvamsa*, Ch. XXVII, is scarcely satisfactory; the *pāsāda* of nine storeys has 100 *kūṭāgāras* on each storey, and little pavilions, *pañjara* or (*candra*) *-sālā* seem to be meant, such as are very common in Pallava architecture; e. g. at Māmallapuram, and cf. Jouveau-Dubreuil, *Dravidian Architecture*, fig. 4. The pavilion occupied by the Bodhisattva while in his mother's womb is called a *kūṭāgāra* (*Lalitā Vistara*, Ch. VII).

As Pāli *pañṇa-kuṭi* and *pañṇa-sālā* are synonymous designations of hermits huts, and as these are always single-storeyed cells, it follows that *kūṭa-sālā* need not be a room on the top of a building.

I am inclined to suppose that *kūṭāgāra* generally means simply "a

house with a finial (or finials)." Cf. *kāṭa*, "finial" (vase) in inscriptions cited in *Dict.*, p. 708. *Gaṇa-kāṭa*, *Jātaka*, I, 76. In Ceylon in the eighteenth century the use of such finials was permitted only in the case of devāles, vihāres, resthouses, and the houses of chiefs of Disāwa or higher rank. On this analogy the ultimate meaning of *kāṭāgāra* would be "honorable building." In all the early reliefs, palaces, city gates, temples, etc., are duly provided with finials, while village houses lack them.

Kuṭi: not in the Dictionary as a separate word, but cf. *gandha-kuṭi*.

In the *Sālagava* (= *Isānabali*) ritual of the *Gṛhya Sūtras* (citations in Arbmann, *Rudra*, pp. 104 ff.) *kuṭi* = *āyatana* in the sense of shrines erected for *Isāna*, *Miḍhuṣi* and *Jayanta*.

Under *gandhakuṭi* add: see full discussion in *A. S. I., A. R.*, 1906-07, pp. 97-99, with *mālagandhakuṭi* and *sailagandhakuṭi* cited from *Sārṇāth* inscriptions. Reference should also be made to the *Sāñci* relief, north *torāṇa*, left pillar, front, second panel, showing the *Jeta-vana* garden with the *Gandhakuṭi*, *Kosambakuṭi*, and *Karorikuṭi* (Marshall, *Guide to Sanchi*, p. 58), "the three favourite residences of the Buddha." Further references: Kern, *Manual of Indian Buddhism*, p. 28; Cunningham, *A. S. I., Reports*, XI, pp. 80 ff.; Sahni and Vogel, *Sarnath Catalogue*, p. 19, 211; Grünwedel, *Buddhist Art in India*, p. 16.

In the *Maṇimekhalai* the small temple of *Campāpati*, patron deity of *Puhār*, is called a *guṭikā*.

Kappiya-kuṭi, *vacca-kuṭi*, *Cullavagga*, VI, 4, 10.

Lepa: medium, glue, should be distinguished from *sudhā*, plaster. *Vajra-lepa*, "adamantine medium," actually glue, see recipe in the *Silparatna*, Ch. 64 (my translation in *Sir Ashutosh Mookerjee Memorial Volume*); *Mediaeval Sinhalese Art*, pp. 118, 119. Cf. *Uttara Rāmacarita*, III, 40.

Sudhā-lepya, plaster and paint, *Bodhgayā*, 6th-7th century inscription, *A. S. I., A. R.*, 1908-09, p. 154.

Likh: additional to the common meanings is that of "turning" (wood, etc.). *S. B. E.*, XX, 78, note 3, is wrong in supposing that turning was unknown to ancient India. Metal, wood, and ivory are all turned at the present-day by means of hand-power devices quite unlike the European lathe (see *Mediaeval Sinhalese Art*, Pl. VI, fig. 4, for ivory, and remarks *ib.* p. 141); turned stone pillars are highly characteristic of *Chālukyan* architecture (cf. Rea, *Chalukyan Architecture*, p. 5); and turning is certainly involved in the manufacture of many objects represented in early reliefs. It is significant that the *Sinhalese* name of the grooved spindle used in turning is *liyana kanda*, and the word *liyana* corresponds to *likhitum* used in *Cullavagga*, V, 8, 1 and V, 9, 2 with reference to turned wooden bowls and bowl-rests. A meaning, "to turn wood, etc." should therefore be given in *Pali* and *Sanskrit* dictionaries under *likh*. *S. B. E.*, *loc. cit.*, trying

to escape the meaning "turning" goes so far as to speak of using an adze on metal; a comical idea, if regarded from the standpoint of practical craft.

Another reference to turning will be found in the *Mahāsatiṭṭhaṇṇa Suttanta* (*D. N.* II, 291 = *Dialogues*, 2, p. 328), "even as a skilful turner (*bhama-kāra*)"; the simile, ("drawing his string out at length," etc.), implies the actually surviving Sinhalese technique.

Steatite boxes "turned on the lathe," found at Bhīṭā and assigned to the eighth century B. C., are described in *A. S. I.*, *A. R.*, 1911-12, pp. 43, 93. For some other references to early turned objects see *Rūpam*, 32, pp. 122-123.

Linga: the following references are of interest in connection with the Deva-Rāja cult in Java and Cambodia: Simpson, in *JRAS*, 1888 cites numerous instances and regular practice of erecting lingams over the burial places of dead sannyāsins. In *A. S. I.*, *Southern Circle*, 1911-12, p. 5 "sannyāsins are not cremated, but buried, linga shrines or brindāvana being raised to mark the spot." *Id.* 1915-16, p. 34, quoting *S. I. Ep.*, 1914, "In the case of Sannyāsins . . . a raised masonry platform is sometimes set up over the place of burial, on which a tulsi plant is grown, or a stone lingam is set up as though to proclaim to the world that the body buried below has attained to the sacred form of Śiva-linga." E. Carpenter, *Light from the East, being Letters . . . by the Hon. P. Arunachalam*, 1927, p. 63, quoting a letter from the latter regarding the tomb of his guru, "On the site where his body is interred is a lingam to which the worship is offered as to the Master." For the Deva-Rāja cult and its supposed South Indian origin see F. D. K. Bosch, "Het Linga-heiligdom van Dinaja," *Tijdschr. T. L. en Volkenkunde*, LIV, 1924.

Loha: is not iron, but brass or copper, bronze, etc. I do not think that any example of an Indian image made of iron could be cited. The roofing of the Lohapāsāda (*Mahāvamsa*, Ch. XXVII) was of copper or bronze. In *Mahāvamsa*, XXIX, 11, *loha-paṭṭa* is a sheet of copper used in the foundations of a stūpa, but we find *ib.* 12, *ayo-jāla* when an iron trellis is designated. One of the most important architectural references to *loha* is Mahendravarman I's inscription at Maṇḍagapattu (Jouveau-Dubreuil, *Conjeevaram Inscription of Mahendravarman I*, Pondicherry, 1919); here brick, timber, *loha*, and mortar are mentioned as customary building materials. Copper nails are common finds on ancient sites. Other examples of *loha* will be found in the *Dictionary* under *ābhāsa* (!). Cf. also Sinhalese *pas-lo*, an alloy of five metals.

Loṣṭa: the use of *loṣṭa*, probably slag, in preparing a *kiṭṭa-lekhanī*, should be noted (*Silparatna*, Ch. 64).

Makara-toraṇa: hardly an arch "marked" with a *makara*, but one springing from two *makaras*, and usually crowned by a full-faced *makara* or *makari*.

Mañca: cf. *tañkita mañca*, stone couch, the altar of a *yakkhacetiya*, viz. the *bhavana* of the Yakkha Suciloma (*Saṃyutta Nikāya*, X, 3, P. T. S., ed. p. 207), glossed *pāsāna-mañca*, thus synonymous with *śilā-paṭṭa*, see my *Yakṣas*, p. 20, note 3 (*veyaḍḍi*).

See also *S. B. E.*, XX, 87, note 2, *ib.*, 168, note 3; and 278, note 3; *Mahāvamsa*, XXVII, 39. Also Geiger, *Mahāvamsa*, translation, p. 204, note 3; the text has *bodhiṃ ussisakam . . . sayanam* but this means the *vajrāsana* at the foot of the Bodhi tree (the description is of the *Māradharasāna*), certainly not the *Parinibbāna mañca*. *Heṭṭhamañca*, *Jātaka*, I, 197, probably the earthen bench outside a hut. *Mañcapaṭṭhāna*, space for a couch, *Cullavagga*, VI, 11, 3 (Commentary). Cf. s. v. *Paṭṭa*, *Sthāna* and *Vedika*. *Re S. B. E.*, XX, 278, note 3, I see no reason why the *paṭipādaka* of a *mañca* should not be fixed legs; no ancient representations or modern examples have trestles. The only trestles occur in connection with tables (*hatthapīṭha* of *Sumaṅgala Vilāsini*, II, 20, text 1, 163, and as seen on early reliefs) and modern *daṇḍāsana* (*Medieval Sinhalese Art*, Pl. X, 1). *Pīṭha* of the *Cullavagga* may include both *hattha pīṭha* and *pāda*°, tables and footstools, hardly "chairs."

The fact that *mañca* and *pīṭha* were cleaned by beating does not prove that they were stuffed or upholstered: the actual support may have been made then as now of plaited cane or plaited webbing and anyone who has had experience of such beds will realise that they frequently need airing and beating.

Meru: reference should be given to E. B. Havell, *The Himalayas in Indian Art*, and W. Foy, "Indische Kultbauten als Symbole des Götterbergs," *Festschrift Ernst Windisch*, 1914.

Nāga-bandha: is said to be a kind of window, and this would evidently be a perforated window with a design of entwined serpents; there are some in the early *Čālukyan* temples, and one more modern is illustrated in the Victoria and Albert Museum, *List of Acquisitions*, 1926, fig. 74. Cf. *Sinhalese nāga-dangaya*. But *nāga-bandha* also means both in Ceylon and in southern India, the stop of a chamfer (*Medieval Sinhalese Art*, pp. 88, 129, and *Jouveau-Dubreuil*, *Dravidian Architecture*, pp. 10, 25, 42 and fig. 17); this stop often approximates in shape to a cobra's hood. Cf. *nāga*, s. v. *candra-śālā*.

Nagara: add reference to the detailed description of a city in *Milinda-pañha*, V, 4 (also *ib.* I, 2 and II, 1, 9); the terms *nagara-vaḍḍhakkī*, *daḷha-gopura*, *gopur-aṭṭāla*, *koṭṭhaka*, *devaṭṭhāna* occur. Another good description of a city is cited in Barnett, *Antagaḍa Dasāo*, p. 1, from the *Aupapātika Sūtra*.

Nāgara: the meaning "secular" as contrasted with *satya*, "sacred," *vainika*, "lyrical," and *miśra*, "mixed," should be cited from the *Viṣṇudharmottara*, in relation to painting.

Nārāca, etc.: the Dictionary has only "a road running east." In the

*Sthānāṅga Sūtra** we have *vajja-risaka-naraya-saṅghayaṇe* = *vajra-rṣabha-nārāca-saṅghayaṇe*, meaning "with joints firmly knit as if by mortise, collar, and pin." Hoernle, *Uvāsagadasāo* cites Abhayadeva's Sanskrit commentary, according to which *vajja* = *kilika*, *risaka* = *pariveṣṭana paṭṭa* or encircling collar, *nārāya* = *ubhayato-markaṭa-bandha* or double tenon and mortise joint, and *saṅghayaṇa* = scarf-joint, five kinds being enumerated (for illustration of one see *Medieval Sinhalese Art*, fig. 75). One would have thought that *vajja* simply meant "firmly." As regards *pariveṣṭana paṭṭa* cf. *Mahāvagga*, V, 11, "Now at that time the Vihāras were bound together by thongs of skin," explained by Buddhaghosa (cited *S. B. E.*, XVII, p. 31) as referring to the tying together of *bhitti-dandakādi* "wall posts, etc." This would seem to have been natural in the case of the wattle and daub walls of the simple *paṇṇa-sālās*; but we do also find early pillars decorated with designs of interlacing ropes or thongs which may be vestigial ornament, and the roof of the shrine of the Turban-relief at Sāñci (south gate, left pillar, inner face) is bound by crossing ligatures which could only be described as *pariveṣṭana paṭṭa*. *Atharva Veda*, IX, 3 refers to the parts of a house that are knotted and tied (*naddha*). A house (*śālā*) with grass sides has beams (*vaṁśa*), ties (*nahana*) and binding (*prāṇḍha*), clamps (*samdamśa*) and "paladas" and "*pariṣvañjalaya*." See also *Upamit*.

Cf. *Medieval Sinhalese Art*, p. 114, "Nails were not used in ordinary building, but everything was fastened with rattans and other jungle ropes." This refers to modern village practise.

Nayanonmilana: p. 88 in *Indian Architecture*: my detailed account of the *netra-maṅgalya* ceremony should be cited, *Medieval Sinhalese Art*, p. 70 f.

Pāduka: should be cited also in the sense of sacred footprints, used as a symbol (*śrīpāda*, *Viṣṇupāda*, etc.). The *vacca-pāduka* of a latrine are also of interest, see *S. B. E.*, XVII, p. 24; good examples have been found on monastery sites in Anurādhapura. Cf. *vacca-kupī*. Numerous lavatory sites are illustrated in *Mem. A. S. C.*, Vol. 1.

Pālīkā: should be translated "abacus," with references to Tamil *palagai* Jouveau-Dubreuil, *Dravidian Architecture*, pp. 10, 25, 42, and fig. 17. See also *kapota* (-*pālīkā*).

Pāṁsu: not in the *Dictionary*. Not translated where it occurs as a permissible building material, Buddhaghosa, *Comm. on Cullavagga*, VI, 1, 2, cited *S. B. E.* XIII, 174; the other permitted materials being brick, stone, and wood. *Pāṁsu*, taking all its uses into consideration, should here be rendered "laterite," a common building material especially in Ceylon. In *Mahāvamsa* XXX, 7-9, where *pāṁsu* is used in making bricks, the word is rendered "sand" by Geiger; but "de-

* Benares edition, p. 413a, cited by Hoernle, *Uvāsagadasāo*, II, Appendix, p. 45.

composed rock," "grit," would be preferable. True sand (*vālikā*) would need only sifting, not crushing and grinding as well. In rendering such words some regard must be had both to practical considerations and to the materials actually available in a given locality. In the tropics the country rock decomposes either into true laterite (Sinhalese "cabook") which is soft when cut, but hardens on exposure; or into a friable sandy grit; both of these have their use in building. Of course, there are many places where *paṃsu* means simply earth, dust, refuse, etc., cf. *paṃsu-kūla*, rags from a dust-heap. See also *śarkara*, s. v. in *Diot.* and under *ābhāsa*.

Pañcāṅgula: *hattha-bhitti* of *Cullavagga*, VI, 2, 7 explained by Buddhaghosa as *pañcāṅgula bhitti*: *pañcāṅgulika-pantikā*, *Mahāvamsa*, XXXII, 4; *pañcāṅgulitale*, *Aupapātika Sūtra*, § 2. Possibly colored impressions of the human hand such as one not uncommonly sees on house walls, more likely a five-lobed design such as the palmettes which are so characteristic of early Indian decoration. In all the above passage we have to do with ornament applied to walls or to cloth. Cf. the "three-finger ornament" of Annandale, N., *Plant and animal designs . . . of an Uriya village*, Mem. A. S. B., VIII, 4, fig. 2.

Pañjara, which has, like *candra-śāla-vātāyana*, the double significance of "attic" and "dormer window" (see Jouveau-Dubreuil, *passim*), occurs in the latter sense in *Jātaka*, III, 379, "looking down from an open window (*vaṭasihapañjarena*). Cf. *Mahāvamsa*, XXVII, 16.

Ratha-pañjara, the body of a carriage, *Jātaka* II, 172, IV, 60.

Parikhā: *Mahāvamsa*, XXV, 48 *timahāparikha*, "having a great triple moat." See also under *Harmya*.

Paṭṭa: no reference to the meaning "frontlet," except that under *vira-paṭṭa* we find "front-plate." In the story of Udayana, Jacobi, *Ausgewählte Erzählungen*, p. 32, a *sovaṇṇa paṭṭo* is used to cover the brand on a man's forehead and is contrasted with *mauḍa*, a turban or crown. In Ceylon the gold forehead plate used in investiture is called a *nalal-paṭṭa*, those thus honored being known as *paṭṭa-bendā*. In *Prabandhacintāmaṇi* we get *paṭṭa-hastin*, state elephant; now elephants do not wear turbans, but do wear jewelled bands round the temples. In *Bṛhatsamhitā* the section on *paṭṭas*, which are not worn by those of the highest rank, seems to imply the meaning frontlet. Even *Mahāvamsa*, XXIII, 38, *dukūlapaṭṭena veṭṭhāyitvā* may refer only to the tying on of a fillet, though "turban" seems plausible. No reference to *paṭṭa* in the sense of stone slab, etc. See *Mālavikāgnimitra*, III, 79 (*silāpaṭṭaam*), and Hoernle, *Uvāsagadasāo*, II, p. 107; *sthāla* (*sthāla*) as synonym, *Mālavikāgnimitra*, IV, 132. *Loha*, and *sajjhu-paṭṭa*, sheets of copper and silver, *Mahāvamsa*, XXIX, 11-12. *Pāṭika*, stone slab at the foot of the steps, *Mahāvamsa*, XXXI, 61; other terms current in Ceylon for "moonstones" are *handa-kaḍa pahana* (= *candra-khaṇḍa pāsāṇa*), and *iri-handa gala* (= *sūrya-*

candra kala). *Ūrāhva-paṭṭa*, "stela," should also be noted. *Yoga-paṭṭa* is the braid used by hermits to support the knee when seated on the ground. *Cullavagga*, V, 11, *paṣāca-paṭṭika*, perhaps a "cupboard with five shelves." See also under *nārāca*.

Phalaka: commonly a panel for painting on. Add: *appasena*°, a board to lean against, when seated on a couch, to protect the walls, *Cullavagga*, VI, 20, 2, and VIII, 1, 4. *Phalakattharasayana*, a wooden bed, *Jātaka*, 1, 304. A kind of cloth, *Mahāvagga*, VIII, 28, 2 (see note in *S. B. E.*, XVII, 246), and *Cullavagga*, V, 29, 3. See also s. v. *Arghya* and *Pralamba*.

Prākāra: an important reference is misplaced under *prāsāda*, *Dictionary*, p. 419. The Besnagar inscription (*Mem. A. S. I.*, No. 4, pp. 128, 129) should be cited (*pājā-silā-pākāra*); also Khāravēla's inscription at the Hāthigumphā, Udayagiri. The *Mahāvamsa*, XXV, 30, has *ucca-pākāra*, rampart; ib. XXXIII, 5, *hatthi-pākāra* in the sense of the basement retaining wall of the platform of a stūpa, with the foreparts of elephants projecting in relief (see also Parker, *Ancient Ceylon*, p. 284). *Cullavagga*, V, 14, 3 and elsewhere has *itṭha*-, *silā*-, and *dāru*- *pākāras*. Other references, *Mysore A. S. Reports*, 1913-14, pp. 8, 14 and 1919-20, pp. 2, 3, 5. In *Kauṭīliya Arthaśāstra*, 53, "rampart" rather than "parapets." *Pākāra* = wall round a park, *Buddhaghosa*, *Sumaṅgala Vilāsini*, I, p. 41.

Pralamba (-*phalaka*): reference should be made to the illustration of a *pralamba-phalaka*, fig. 94 in my *Mediaeval Sinhalese Art*, and the full explanation of its use there given according to the *Sāriputra*, as the *Bimbamāna* (see *Dictionary*, p. 768) is called in Ceylon.

Pramāṇa: the single meaning given, "measurement of breadth" is insufficient. *Pramāṇa* in the sense of "ideal proportion" appropriate to various types is one of the *śaḍaṅga* of painting, given in Yaśodhara's Commentary on the *Kāmasūtra*. See also Masson-Oursel, "Une connexion dans l'esthétique et la philosophie de l'Inde, La notion de *Pramāṇa*," *Revue des arts asiatiques*, II, 1925 (translated in *Rūpam*, No. 27/28). *Pramāṇa* = land area specified in grants, see Thakur in *Sir Ashutosh Mookerjee Memorial Volume*, 1928, p. 80.

Prāsāda: No reference to the Bharhut relief with inscription *Vijayanta pāsāda*, the only early *prāsāda* identified as such by a contemporary inscription; it is a three-storeyed palace (see *HIIA*, fig. 43); we possess so few positive identifications of this kind that none should be omitted. The *Lohapāsāda* described in *Mahāvamsa*, Ch. XXVII, was an *uposatha* house of nine storeys each with 100 *kūṭāgāras* "provided with *vedikās*, and it contained 1000 chambers (*gabbha*). It was covered with plates of copper, and thence came its name" (ib. XXVII, 42); it was of wood, as it was later burnt down (ib. XXXIII), and rebuilt with only five storeys; the stone pillars on which the superstructure was erected are still standing at Anurādhapura. The *Sat*-

mahal-pāsāda at Polonnāruva should also be mentioned (HIIA. fig. 287). See also under *gṛha*.

Punya-sālā, -*gṛha*: not in the *Dictionary*. Both have been thought to refer to temples, but the meaning *dharmasālā* is far more probable, as pointed out by Hopkins, *Epic Mythology*, p. 71 (*ib.*, 70-73 contains a very valuable discussion of images and temples as referred to in the *Epics*).

Raṅga, *raṅga-bhūmi*, *nāṭya sālā*, *prekṣa-gṛha*, etc.: not in the *Dictionary*. No citation in the *Dictionary* of the *Nāṭya-śāstra*, where the construction of theatres is described at some length, with much use of technical architectural terms. A *raṅga-bhūmi*, stage, set up, *Mahāvamsa*, XXXI, 82. *Raṅga*, *Jātaka* II, 152.

Rathakāra: "car-maker," carpenter, not in the *Dictionary*. A *sūdra*, but connected with Vedic sacrifices; a *snātaka* may accept food from one (*Baudhāyana DhS.*, I, 3, 5 = *S. B. E.*, XIV, 159). Much information on the social position of craftsmen and related subjects is given in my *Indian Craftsman*, apparently unknown to the author: see also *karmāra* and *āveṣaṇin*, above, and *rūpakāra*, below. *Rathakāra* in inscription of Virūpākṣa I, *A. S. I.*, *A. R.*, *Southern Circle*, *Epigraphy*, 1915, p. 106.

Rūpakāra: sculptor, not in the *Dictionary*. But the *Śilpin Rāmadeva*, son of the *rūpakāra* Suhaka, inscription at Dhar, *A. S. I.*, *A. R.*, 1903-04, p. 240, is cited under Rāmadeva. Reference should be given to Śivamitra, a *śela-rūpakāra* of Mathurā, mediaeval inscription at Śrāvastī, *A. S. I.*, *A. R.*, 1908-09, p. 133. For Buddha-rakṣita, a *rūpakāraka*, see Cunningham, *Bharhut*, inscription No. 42.

Sabhā: the Bharhut relief with inscription *Sudhammā Deva-sabhā*, a pillared circular shrine with cornice and dome is not cited (HIIA, fig. 43). See also *Saṃyutta Nikāya*, XI, 3, 5 = *Kindred Sayings*, I, p. 307, and *Dīgha Nikāya*, II, 207-209.

In *Jātaka* VI, 127, the *Sudhammā-sabhā* of Indra has octagonal columns (*aṭṭhamsa sukatā thambhā*). The description of the heavenly *sabhās* in *Mbh.* II, 6-11, is altogether vague.

Sahasra-līṅga: not a "group" of a thousand phalli, but one *lingam* with a thousand facets, representing a thousand *lingas*. A good example at Śrīśailam, *A. S. I.*, *Southern Circle*, 1917-18, Pl. V.

Samudrāgāra: a summer house by a lake, *Mālavikāgnimitra*, Act IV. *Samuddavīhāra*, a monastery on a river-bank, *Mahāvamsa*, XXXIV, 90. *Samuddapaṇṇa-sālāya*, *ib.* XIX, 26, a hall built on the sea-shore. Cf. the pavilions on the bund at Ajmer, and the island palaces at Udaipur.

Santhāgāra: "mote-hall," with a central pillar (*majjhima-tthambam*), *Dīgha Nikāya*, III, 209 = *S. B. B.*, IV, 202.

Śilpa: in the *Atharva Veda*, a "work of art" (Bloomfield, *Atharva Veda*, p. 70).

Silpa-sāstra: Hsüan Tsang's reference to five *vidyās*, of which the *Silpa-sthāna-vidyā* is one, is important as proving the existence of technical works on *śilpa* in his day (Beal, Records, I, p. 78). The much earlier *Sulva Sūtras* are effectively *Silpa-sāstras*, though not actually so designated.

Sivikā-garbha, *sivikā-gabbha*: an inner room shaped like a palanquin, *Cullavagga*, VI, 3, 3. Glossed by Buddhaghosa as *caturassa*, four-sided. What may be meant may be gathered from the elaborate *sivikās* represented in Amarāvati reliefs, where their design is quite architectural (Burgess, *Buddhist stupas of Amaravati and Jaggayyapeta*, Pl. XI, 2 and p. 55, and Pl. XI, 1).

Sopāna: see s. v. *ālamba-bāha*, *harmya*, *hasti-hasta*, *kaṇṭhaka*, *paṭṭa*.

Sreni: that painters were organised in guilds is apparent from Jacobi, *Ausgewählte Erzählungen in Māhārāṣṭri*, p. 49, where the painter Cittaṅgaya, "working in the king's *citta-sabha*" belongs to a *seṇi* of *cittagaras*. It is of interest that his daughter Kanyamañjarī also paints. See also list of 18 guilds in *Jātaka*, VI, 22: other references s. v. *seṇi* in P. T. S. Pali Dictionary.

Srīvatsa (*sirivaccha*): also characteristic for Mahāvīra. The cruciform flower is the later form only; in the Kuṣāna period it is what numismatists have called a *nāga* or shield symbol (good illustration on a coin, Rapson, *Coins of the Andhra Dynasty*, pl. VIII, 207, reverse, and on Mahāvīra's breast, Smith, *Jaina Stupa of Mathurā*, pl. XCI, right); the development of the early form into the later can be traced. Also cf. Hopkins, *Epic Mythology*, p. 205.

Sthāna: the sense of pose, stance, is not given. Five *sthānas* (frontal, three-quarter, profile, etc.) are defined in the *Silparatna*, Ch. 64, and thirteen in the *Viṣṇudharmottara* (see translation by S. Kramrisch, 2d edition, 1928). *Mahāsthāna*, sacred area, inscription of Mahāpāla. Samvat 1083, A. S. I., A. R., 1906-07, p. 99: *Nāgendrasya . . . Dadhikarnṇasya sthāne silāpaṭṭo*, Mathura inscription Lüders' List 85, Ep. Ind. I, 390, no. 18, cited Mem. A. S. I., Vol. 5.

Stūpa: no description of the component parts is given: they are *sopāna*, *aṇḍa*, *medhi* or *garbha*, *harmikā*, *yaṣṭi*, *chattraṭṭa*, *varṣa-sthāla* or *amṛta-kalāṣa*. There should be mention of the synonym *dāgaba* (*dhātu-garbha*), and of *eḍuka* and *jāluka* by which names Buddhist relic shrines are referred to in the *Mahābhārata* (3, 190, 65 and 67). The detailed description of a *stūpa* in the *Divyāvadāna*, p. 244, summarised by Foucher' *L'Art gréco-bouddhique . . . I*, p. 96, and the detailed account of the building of a *stūpa* in *Mahāvamsa*, Chs. XXVIII, *seq.* should be referred to; also the full account in Parker, *Ancient Ceylon*. The latter quotes a Sanskrit-Pali text defining the shapes and proportions of *dāgabas*, from the *Waiḍḍyānta-pota* (or *Vaiḍḍyāntaya*) a *śilpa-sāstra* well known in Ceylon, but not mentioned in the Dictionary. The *Avadāna Sataka* mentions three kinds of *stūpas*—*gandhastūpa*, *keśanakhastūpa*, and *stūpa*—the latter being

the regular *dhātu-stūpa* for funerary relics. The *Dhammapada Atthakathā*, XXI, 1-290, *H. O. S.*, Vol. 30, p. 175, has a *thūpa* built over the body of a Brahman's son who had become a Buddhist monk. Were *stūpas* ever erected by others than Buddhists or Jains? In Kāśyapa's Conversion at Sāñci (east gate, left pillar, inner face, third panel) a railed *stūpa* forms part of the Jaṭila *ārāma*: so also at Amarāvati, Fergusson, *Tree and Serpent Worship*, Pl. LXXXVI.

Stūpikā: *cetiyaśise kiritaṃ viya kanakamayam thūpikam ca yojetvā* (*Attanaguluvaṃsa*, Alwis, IX, 7). Dome of a palace, *Mahāvamsa*, XXXI, 13, with above reference (Geiger).

Cf. *silāthūpaka*, *Mahāvamsa*, XXXIII, 24, "a little stone *stūpa*," probably actually the *stūpa* of H. I. I. A., fig. 292. But the usual meaning of *stūpikā* (as given in *Dict.*), is "dome." I do not think this terminology implies a derivation of the dome from the *stūpa*, but only a resemblance of form. Granting the recognized resemblance, however, the point is of interest in connection with the origin of the bulbous dome, for many early *stūpas* are markedly bulbous. Some Pallava temples have bulbous domes, and even the dome of H. I. I. A. fig., ca. 200 A. D. almost exactly follows the shape of the slightly swelling *aṇḍa* of the *stūpa* of ib. fig. 146.

Sulka-śālā: a toll-house, *Divyāvadāna*, 275, seq. *Sulka-sthāna*, *Arthaśāstra*, II, 3.

Tāla-māna: here reference should be made to many published accounts, e. g. Rao, *Tālamāna*, my *Mediaeval Sinhalese Art*, Ganguly, *Orissa and her Remains*. On pp. 230, 233, what part of the body is the "hiccough?"

Tṛṇacchadana, Pali *tiṇa-cchadana*: "thatch," *Cullavagga*, *passim*. In *Atharva Veda*, IX, 10, 11, the thatch is called a thousand-eyed net stretched out like an *opaśa* on the parting (*viśuvant*, here = ridge-pole). See also *Upamit*.

Tullā: the meaning "well-sweep" should be added (*Cullavagga*, V, 16, 2); two other means of raising water are mentioned, *loc. cit.*, viz. *karaka-ṭaṅka* literally "pot-edge" or "pot-ridge," probably the "Persian" water-wheel, and *cakkavaṭṭaka*, wheel and axle. All three are still in common use.

But is *karaka-ṭaṅka* really distinct from *kara-kaṭaka*, a hand wheel for drawing water?

Upamit, etc.: RV. I, 59, 4 and IV, 5, 1; AV, IX, 3, 1. See Bloomfield, *Atharva Veda*, II, 185, 195; Whitney, *Atharva Veda*, 525; Zimmer, *Altindisches Leben*, Ch. V; etc.

The whole terminology of the *śālā* is difficult, but the rendering of *upamit* as (sloping) buttress (by Bloomfield and by Zimmer) is extremely implausible and almost certainly an error. I suggest *upamit* = plinth or pillar base; such bases were probably, as at the present day, of stone, as a protection against white ants.⁷ Then *pratimit*

⁷ Cf. *Mediaeval Sinhalese Art*, p. 129, fig. 72, and pl. VII, fig. 7, "Wooden pillars often rest on a stone base as a protection against white ants."

(= *sthūpa*) are the main upright wooden pillars (corner pillars) set up on the *upamit*; *parimit*, the horizontal beams of the framework, connecting with the *pratimit* by means of mortices or dovetails (*sandamśa*); * *pakṣa*, perhaps the wall plates; *vamśa*, the bamboo rafters. The roof (*chanda*) is thatched with straw or reeds (*trṇa*): the cut ends of the reeds may have given rise to the designation "thousand eyed" of AV. IX, 3, 8. *Palada* (bundles of grass or reeds, according to Zimmer) and *pariṣvañjalaya* I cannot explain.

The *śikyāni*, ropes "tied within for enjoyment," may have served as partitions, to be hung with cloths so as to divide the interior into separate rooms; the Sinhalese *piliṇṇa* is used in this way, and I remember to have seen an ornamental example carried by a party of travellers for use in a public resthouse to secure privacy.

Vajrāsana: "diamond throne," though well-established, not a good rendering; "adamantine throne" would be better. See E. Senart, "Vajrapāni dans les sculptures du Gandhara," *Congr. Int. Orientalistes, Alger*, 1905, Vol. I, p. 129. *Bodhi-pallamka* in the *Nidānakathā*, *Jātaka*, I, 75, is an interesting synonym. The Buddha's *āsana* at the Gal Vihārā, Poḷonnāruva, Ceylon, is decorated with actual *vajras*, but this probably represents a late interpretation of the term; I know no other instance. See also *Bodhi-maṇḍa* and *Mañca*.

Vāna-laṭṭhi, rafters or reapers? As a protection against the rain, the *vānalaṭṭhi* (of a house, *grha*) are to be covered over with straw (*kaṣa*, here thatch rather than straw mats), *Arthaśāstra*, III, 8. Cf. *Yatṭhi-vana*.

Vapra: in *Kauṭīliya Arthaśāstra*, 51, 52, *vaprasayopari prākāraṃ*; "glacis" rather than "rampart," which latter rises above the *vapra*.

Vardhaki: I cannot think of any case where the *vardhaki*, Pali *vaḍḍhaki*, is specifically a painter. The usual meaning is architect, artisan. Cf. *nagara-vaḍḍhaki*, the architect of a city, *Milindapañha*, II, 1, 9. In *Mahāvamsa*, XXX, 5, the 500 *iṭṭhakā-vaḍḍhaki* are certainly not all "master-builders" as rendered by Geiger, but rather brickmakers or bricklayers; even the *vaḍḍhaki* who is their spokesman, *ib.*, 12 is hardly more than *primus inter pares*. *Vaḍḍha*, architect, one of the 14 'jewels' of a Cakravartin, *Uttarādhyaṇasūtra* commentary, cited Charpentier, p. 321. Numerous designations of craftsmen will be found in the *śatapatha Brāhmaṇa* list of symbolic victims of the *Puruṣamedha* (*S. B. E.*, XLIV, 413-417).

* *Mediaeval Sinhalese Art*, loc. cit. (p. 129), "where the whole building rests on low stone pillars, the wood pillars are mortised into huge beams forming the framework of the floor."

Vedic *parimit* and Sanskrit *karṇa-kīla* seem to designate such foundation beams; Vedic *pakṣa* and Sanskrit *karṇikā* the wall plates forming the framework of the roof. Where we have to do with a colonnade rather than a wall, *karṇikā* is of course 'entablature.'

Vardhamāna: add "powder-box," one of the *aṣṭamaṅgala* of the Jains. Early illustrations, Smith, *Jain Stupa of Mathura*, pl. VII; later, Hüttemann, "Miniaturen zum Jinacarita," *Baessler Archiv.*, 1913, fig. 1. *Vardhamāna-gṛha*, *Uttarādhyayanāsūtra*, IX, 24.

Vastra-nip(y)a: is not "a jar-shaped ornament of a column," but the knotted band or ribbon which so often encircles the *pūrṇa-kumbha* which forms the base or capital of a column, and the *Mānasāra* text cited (*kumbha-madhya*, etc.) is perfectly explicit on this point, "and in the middle of the pot (i. e. round the belly) let there be added a colored band of cloth as a protection." This use of a string or band as protecting charm or "fence" is of course well known in many other connections.

Vāstu, add the meaning "real estate" (Meyer, "Liegenschaft"): "*Vāstu* includes houses, fields, groves, bridges (or *ghāṭs*, *setu-bandha*), ponds, and reservoirs," *Arthaśāstra*, III, 8.

Vātāyana: the Dictionary citations show that in the *śilpa-śāstras* types of *vātāyana* are differentiated by preceding qualifying adjectives denoting the pattern of the grille or openwork screen. In the light of this fact, and of the varieties of windows represented in reliefs and the types still in common use, the three designations in *Cullavagga*, VI, 2, 2 are perfectly intelligible: *vedikā vātāpāna* is a window with a rail-pattern grille; *jāla-vātāpāna* is one with a trellis grille, lattice; *salāka vātāpāna*, one provided with upright turned pillars or bars (not "slips of wood"). Buddhaghosa glosses *salāka* as *thambaka*. For turning, s. v. *likh*.

Vedī, *vedikā*, etc.: *veiyā* of Jacobi, *Ausgewählte Erzählungen*, p. 49, must be marriage pavilion rather than balcony, as marriages always take place in special temporary pavilions erected *ad hoc*.

In the common sense of railing, the *Mahāsudassana Sutta*, I, 60, gives the component parts, viz. *stambha* (uprights), *sāci* (cross-bar), *uṇṇiṣa* (coping), and these words often occur in Prakrit forms in the early inscriptions: also plinth, *ālambana*. In *Mahāvamsa*, XXXV, 2, *muddhavedī* is the railing of the *harmikā*, *pādavedī* the railing on the basement level of a *stūpa*; ib. XXXVI, 52 and 103 has *pāsāna*- and *silā-vedī*, "stone railing" (round the Bodhi-tree) rather than "stone terrace" as interpreted by Geiger, p. 296.

Mahāvamsa, XXXII, 4, *vedikā* represented in a painting. *Ālambabāha*, the *vedikā* of a *sopāna*, *Cullavagga*, V, 11, 6 etc. See also *kinkini-jālaya*. Cross references to *p(r)ākāra* and *bhitti*, should be given; cf. *bhitti-vedikā* of *Mālavikāgnimitra*, V, 1, where it is built round an *aśoka* tree.

The very curious use of *vedikā* to mean a mode of sitting (*āsana*) is noted by Charpentier, *Uttarādhyayanāsūtram*, p. 371.

Vidyut-latā: Pali, *vijjū-latā*, *Mahāvamsa*, XXX, 96, the Commentary having *megha-latā nāma vijjū-kumāriyo*, "the cloud-vines called lightning maidens." Real lightnings are evidently intended, not mere zigzag lines as rendered by Geiger. Representations of clouds and lightning are very characteristic of Indian painting; certain rooms in the old palace at Bikanir, entirely decorated with a frieze of clouds, lightning, and falling rain may be cited (see my *Rajput Painting*, Pl. VII). The form *vijjū-kumāriyo* is interesting, as the lightning is similarly always feminine in relation to clouds in rhetoric, and cf. *Yajur Veda*, IV, 1, 11, *Jātaka*, V, 407 and *Myochakika*, V, 46.

Vimāna: reference should be made to the long and excellent discussion of this word in the P. T. S. *Pali Dictionary*.

Viṇā: as this word and also *karuṇa-viṇā* are separately rendered "flute," there can hardly be a misprint; the proper word is, of course, lute. Two forms are found in the early reliefs, one like a harp, the other like a Japanese *biwa*. So far as I know the southern *viṇā* with two large gourds as sounding boxes can be seen first in the paintings at Elūra. The parts of a *viṇā* are named in *Milindapañtha*, II, 3, 5; see also P. T. S. *Pali Dictionary* s. v.

Historical Architects, add:

Ananda, son of Vāsiṣṭhī, as above, s. v. *āveṣaṇin*.

Balaka, pupil of Kaṇha, maker of a *śālikā* at Kondañe, and one of the earliest craftsmen known to us by name (Burgess, *Report on the Buddhist Cave Temples*, 1883, p. 9).

Bammoja, western Cālukya inscription. Bammoja was "a clever architect of the Kali age; the master of the 64 arts and sciences; clever builder of the 64 varieties of mansions, and the inventor (?) of the four types of buildings called Nāgara, Kāliṅga, Drāviḍa, and Vesara" (*A. S. I.*, *A. R.*, 1914-15, Pt. I, p. 29). The description of Kāliṅga as a style is cited in the *Dictionary* from the *Mānasāra*.

Dipā, builder of the Caumukh temple at Rāṇpur; belonged to the Sompura class of Brahman architects, whose ancestor is said to have built the temple of Somnāth-Mahādeva at Prabhās-Paṭṭan. The Sompuras, not mentioned in the *Dictionary*, are said to have built many temples in Gujarat, to have been at Ābu, and to possess MSS. on architecture. One, Nannā-khumṃā, was in charge of repairs at Rāṇpur; another, Keval-Rām constructed temples at Ahor (D. R. Bhandarkār, "Chaumukh Temple at Rāṇpur," *A. S. I.*, *A. R.*, 1907-08).

Jaita, etc.: an inscription on the window of the second storey of Rāṇa Kumbha's *kīrtistambha* at Chitor (A. D. 1440-49) mentions the architect of the building, and his two sons Napa and Puṇja. On the fifth storey are effigies of the two last, and a third son, Pama.

Another inscription at Chitor mentions the fourth son, Balrāja. See *A. S. I., A. R.*, 1920-21, p. 34.

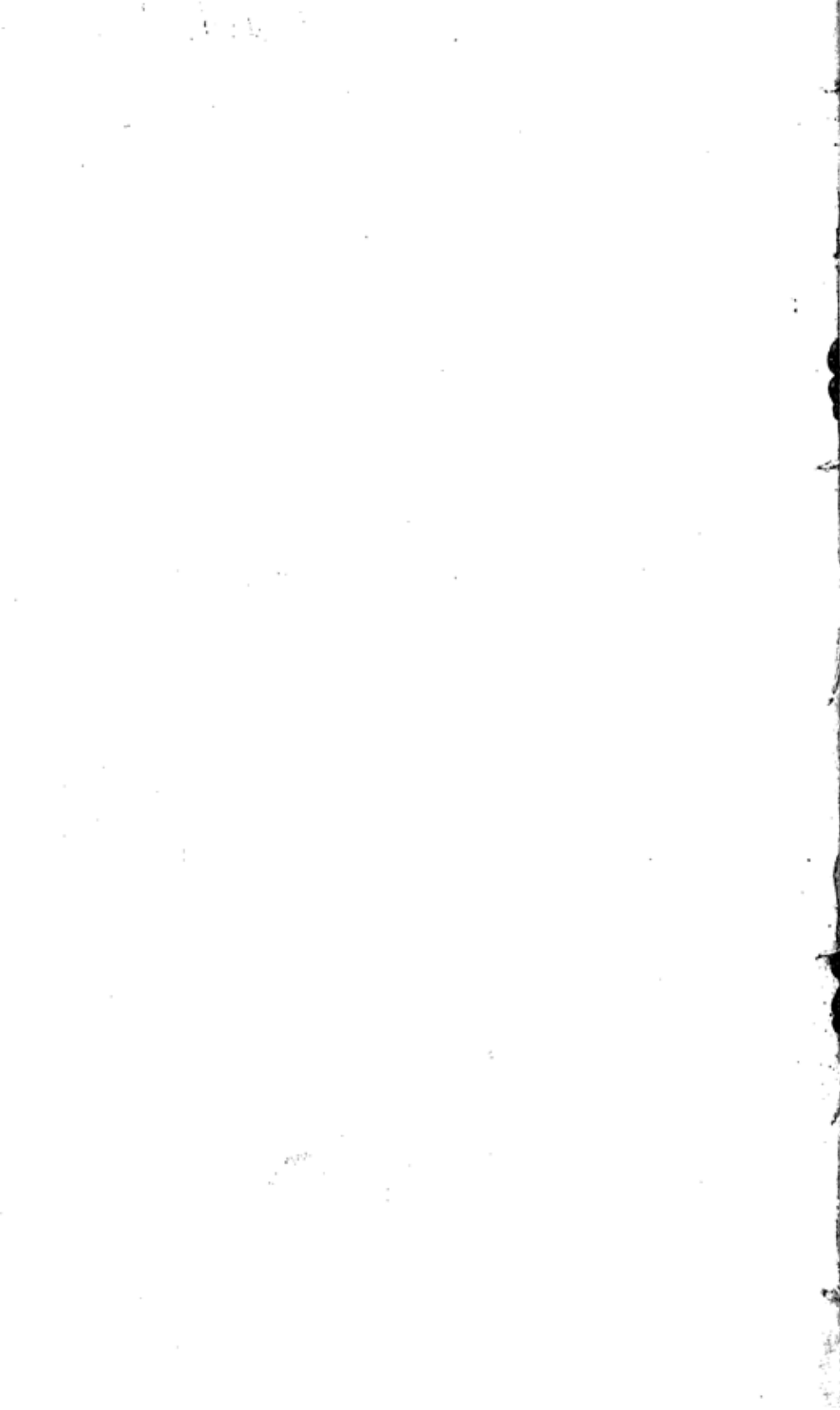
Sidatha (Siddhārtha), son of Nāgacana, as above, *s. v. āveṣaṇin*.

Śivamitra, as above, *s. v. rūpakāra*.

Mallikārjuna Chinnappa, builder of the Virabhadra temple at Chikkabaḷ-
lāpur, Mysore, died 1860; there is a tomb (*gaddige*) in a building
to right of the temple.

Treatises on architecture:

Bimbamāna: known in Ceylon as *Sāriputra*. Add reference to trans-
lated passages in my *Mediaeval Sinhalese Art*.





Col N.C.
16/10/22

Central Archaeological Library,

NEW DELHI.

22953

Call No.

R722.4103/coo

Author—

Cooneraswamy,
A.K.

Title—

Indian Architectural terms

Borrower No.

Date of Issue

Date of Return

"A book that is shut is but a block"

CENTRAL ARCHAEOLOGICAL LIBRARY

GOVT. OF INDIA
Department of Archaeology
NEW DELHI.

Please help us to keep the book
clean and moving.